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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/812,139

03/19/2001

Bartlett Scott Hudson Michel

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10/23/2006

Derrick M. Reid  
Patent Attorney  
The Aerospace Corporation  
P. O. Box 92957 (M1/040)  
Los Angeles, CA 90009-2957

EXAMINER

DIVECHA, KAMAL B

ART UNIT

PAPER NUMBER

2151

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/812,139

Applicant(s)

HUDSON MICHEL, BARTLETT  
SCOTT

Examiner

KAMAL B. DIVECHA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**Response to Arguments**

Claims 1-4, 6-17 are now pending in this application.

**Reassigning an application to another Examiner**

This application has been reassigned to another examiner. The examiner has carefully evaluated the instant claims in view of the prior art. The examiner has conducted a new and careful search of the pertinent prior art areas and presents herein an examination of the claims in view of the newly discovered prior art references. The instant office action is made non-final in order that Applicant may properly respond on the record and submit any necessary amendment to the claims.

Also note that all prior rejection/objections has been withdrawn.

**DETAILED ACTION**

**Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 1-4, 6-17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 09/810,303.

The subject matter claimed in the instant application is fully disclosed in the co-pending application and is covered by the co-pending application since the co-pending application and the instant application are claiming common subject matter.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-15 of the co-pending application disclose all the limitations of the claims of the instant application.

“A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus). “ ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

**Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4, 6-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites:

“A method of broadcasting from a proximal cache at a proximal internet protocol address a routing item for indicating an originator storing web content data associated with a uniform resource locator of a web server at an originating IPA permanently storing the web content data, the method comprising the steps of:

originating URL identifier generating at the proximal IPA an originating URL identifier for indicating the URL,

sourcing IPA generating at the proximal IPA a sourcing IPA for indicating the originator, destination IPA generating at the proximal IPA a destination IPA for indicating a destination cache,

associating at the proximal IPA, the sourcing IPA and the originating URL as the routing item, and

transmitting the routing item from the proximal cache at the proximal IPA to the destination cache at a destination IPA”

The recited limitation “sourcing IPA generating at the proximal IPA a sourcing IPA...” is indefinite because the limitation is unclear.

The recited limitation “destination IPA generating at the proximal IPA a destination IPA...” renders the claim indefinite because the limitation is unclear.

For example: the limitation sourcing IPA generating at the proximal IPA a sourcing IPA when interpreted in its entire form reads as, sourcing internet protocol address, i.e. an IP address

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generating at the proximal internet protocol address a sourcing internet protocol address, does not make sense.

As is known in the art, an IP address is an address assigned to a device for communication purposes in a network comprising Internet or Intranet.

As an example, the above claim can be amended as follows:

“A method of broadcasting from a proximal cache a routing item for indicating an originator storing web content data associated with a uniform resource locator of a web server at an originating server or cache, permanently storing the web content data, the method comprising the steps of:

- generating, at the proximal cache, a URL identifier for indicating the URL,
- generating, at the proximal cache, a source IP address, for indicating the source,
- generating, at the proximal cache, a destination IP address, for indicating a destination cache,
- associating, at the proximal IPA, the source IP address and the URL as the routing item, and
- transmitting the routing item from the proximal cache to the destination cache”

Further, the phrase “routing item” renders the claim indefinite because the phrase can be interpreted in many different ways such as packet, data structure, request, response, etc.

The claim can be interpreted in many different ways such as:

- Forwarding or retrieving a content from a source web server by forwarding the request to the source web server, i.e. a destination.
- Updating a routing table or forwarding table by broadcasting the updates to the destination routing tables because one of the embodiment of the present application is directed to updating a forwarding table (see specification, pages 44-45).

For examination purposes, the phrase “routing item” will be interpreted as a packet including but not limited to a request and a response.

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Please note claim 1 is analyzed for illustration purposes only. Claims 2-4, 6-17 recite the similar errors and/or indefiniteness and are rejected for the same reasons as set forth in claim 1 above.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6, 8, 9, 11, 12, and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jordan et al. (hereinafter Jordan, US Patent No. 6,438,652 B1) in view of Husak (US 5,828,665).

As per claim 8, Jordan discloses a method of broadcasting from a proximal cache at a proximal IPA a routing item for indicating a distal cache storing web content data associated with a URL of a web server permanently storing the web content data, the proximal web cache is a first one of the plurality of cooperative web caches (fig. 1a, col. 2 L4-39, col. 3 L19-41), the method comprising:

- URL identifier generating a the proximal IPA a URL identifier for indicating the web content data of the URL stored in the distal web cache (col. 5 L25-65, col. 9 L1-22: a request message includes a url);

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- proximal IPA generating at the proximal IPA the proximal IPA for indicating the location of the proximal cache (col. 6 L50 to col. 7 L35: a request message includes a an originating address, i.e. source address),

- destination IPA generating at the proximal IPA a destination IPA for indicating a destination cache (col. 6 L50 to col. 7 L35: a request message also includes a destination address),

- associating at the proximal IPA the proximal IPA and the URL identifier as the routing item (col. 6 L50 to col. 7 L35: every request message includes the source, destination and the URL of the object), and

- transmitting the routing item from the proximal cache at the proximal IPA to the destination cache at a destination IPA (col. 6 L50 to col. 67 L65 and fig. 3-4).

However, Jordan does not disclose the process of distance generating at the proximal IPA a distance metric for indicating a web hop distance of any number of the plurality of web hops through which the data would be communicated from the source to the destination.

Husak explicitly discloses the process distance generating a the proximal distance IPA a distance metric for indicating a web hop distance of any number of the plurality of web hops through which the data would be communicated from the source to the destination and broadcasting the update message to the destination (col. 2 L31-67).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Jordan in view of Husak in order to generate at the proximal IPA a distance metric for indicating a web hop distance through which the data, i.e. content would be communicated from the source to the destination.



One of ordinary skilled in the art would have been motivated because hop count metric I used to measure the integer distance in the network in order to achieve optimal path routing in the network (Husak, col. 2 L45 to col. 3 L19).

As per claim 6, Jordan discloses the process wherein the source is a web server distally and permanently storing the web content and the sourcing IPA is a web server IPA indicating the IPA location of the web server (fig. 1a, fig. 1B and col. 3 L18-50).

As per claim 9, Jordan in view of Husak discloses the process wherein the distance metric is greater than one indicating a number greater than one of the number of web hops between the destination caches through the proximal cache to the distal cache storing the web content data (Husak, col. 2 L31-67). Motivation to combine set forth in claim 1.

As per claim 11, Jordan in view of Husak discloses the process of repeating the URL identifier generating step, proximal IPA generating step, distance generating step, associating step, a plurality of times for generating a plurality of routing items each comprising a url and a distance metric, and incorporating the plurality of routing items within protocol data structure within a routing packet prior to the transmitting step, the routing protocol packet comprising url and distance metric and proximal and destination IPA (Jordan, col. 9 L4-45, col. 10 L15-58 and Husak, col. 2 L31-67). Motivation to combine set forth in claim 1.

As per claim 15, Jordan in view of Husak discloses the process wherein the storing steps created a routing table for cross referencing the plurality of URL identifiers to the plurality of distance metrics and to one or more cooperative web caches of the cooperative web caches, the one or more cooperative web caches for routing URL identifiers to distal web caches storing the

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web content of the respective plurality of URL identifiers (Jordan, col. 8 L40-67, col. 9 L10-21; Husak, col. 2 L32-67). Motivation to combine set forth in claim 1.

As per claim 16, Jordan discloses the process wherein the proximal cache and the one or more cooperative web caches being within a local group of cooperative web caches (fig. 1a, fig. 1b and col. 3 L19-41).

As per claim 17, Jordan discloses the process wherein the proximal cache is within one or more local groups of cooperative web caches (fig. 1a-fig. 1b and col. 3 L19-41).

As per claims 1-4, 12 and 14, they do not teach or further define over the limitations in claims 8, 6, 9, 11 and 15-17. Therefore claims 1-4, 12 and 14 are rejected for the same reasons as set forth in claims 8, 6, 9, 11 and 15-17.

4. Claims 7, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jordan et al. (hereinafter Jordan, US Patent No. 6,438,652 B1) in view of Husak (US 5,828,665), and further in view of Bertis et al. (hereinafter Bertis, US 6,092,100).

As per claim 7, Jordan in view of Husak does not disclose the process wherein the originating url is selected from the group consisting of, an exact url identifier being an exact url comprising plurality of urls, a wildcard url identifier being a wildcard url comprising a plurality of url components a last url component of which being a wildcard component, and a coded url identifier being a coded url comprising a series of hashing codes of decomposed url being a decomposition of the url selected from the group consisting of either an exact url or a wildcard url each of which comprising a series of url components, the series of hashing codes being a

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sequence of hashing codes of respective url segments of a respective series of increasingly concatenated url components of the series of url components of the url.

Bertis explicitly discloses the process wherein the originating url is selected from the group consisting of, an exact url identifier being an exact url comprising plurality of urls (fig. 4 item #65, 67, fig. 5 item #96, 98), a wildcard url identifier being a wildcard url comprising a plurality of url components a last url component of which being a wildcard component (fig. 6 item #110), and a coded url identifier being a coded url comprising a series of hashing codes of decomposed url being a decomposition of the url selected from the group consisting of either an exact url or a wildcard url each of which comprising a series of url components, the series of hashing codes being a sequence of hashing codes of respective url segments of a respective series of increasingly concatenated url components of the series of url components of the url (fig. 6 item #114, 116, fig. 7A, col. 2 L59 to col. 3 L12).

Therefore it would have been obvious to a person of ordinary skilled in the art at the time the invention was made to modify Jordan in view of Husak, and further in view of Bertis in order to select the exact url from a group consisting of exact url, wildcard url, and hash codes of the respective exact urls.

One of ordinary skilled in the art would have been motivated because it would have provided a mechanism for efficiently searching the urls (Bertis, col. 2 L50-67).

As per claims 10 and 13, they do not teach or further define over the limitations in claim 7. Therefore claims 10 and 13 are rejected for the same reasons as set forth in claim 7.

**Additional References**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Inohara et al., US 6,256,747 B1: Managing distributed servers.
- b. Garcia-Luna-Aceves et al., US 2002/0004846 A1: Locating Closest server using URL.
- c. McCanne, US 6,785,704 B1: Content Distribution system.
- d. Lowery et al., US 2002/0107934 A1: Dynamic Distributed data caching.
- e. Grove et al., US 6,820,133 B1: High performance delivery of web content.

**Conclusion**

In order to expedite the prosecution in this application, applicant is advised to consider the following:

- Amend the claims to clearly define the invention if the intended invention is directed to updating forwarding or routing tables associated with the web routers or caches.
- Define the term IPA in its entire form in order to clearly set forth the claimed subject matter.
- Define the term "routing item" in the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAMAL B. DIVECHA whose telephone number is 571-272-5863. The examiner can normally be reached on Increased Flex Work Schedule.

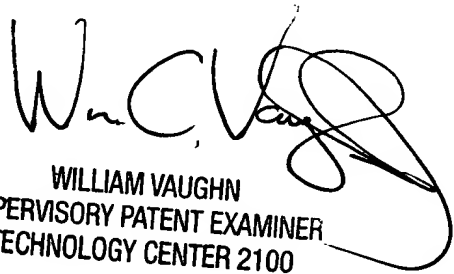
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571-272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kamal Divecha  
Art Unit 2151  
October 10, 2006.



WILLIAM VAUGHN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100